

§ 116.920

narrow catwalks in way of deckhouse sides, hand grabs may be substituted.

(d) The height of top rails required by paragraph (a) of this section must be as follows:

(1) Rails on passenger decks of a ferry or a vessel engaged in excursion trips, including but not limited to sight-seeing trips, dinner and party cruises, and overnight cruises, must be at least 1,000 millimeters (39.5 inches) high.

(2) Rails on a vessel subject to the 1966 International Convention on Load Lines must be at least 1,000 millimeters (39.5 inches) high.

(3) All other rails must be at least 910 millimeters (36 inches) high.

(e) A sailing vessel, an open boat, or any other vessel not specifically covered elsewhere in this section, must have rails of a minimum height or equivalent protection as considered necessary by the cognizant OCMI, based on the vessel's operation, route, and seating arrangement.

(f) Rail courses or an equivalent must be installed between a top rail required by paragraph (a) of this section and the deck so that no open space exists that is more than 305 millimeters (12 inches) high, except:

(1) On passenger decks of a ferry or of a vessel on an excursion trip one of the following must be installed:

- (i) Bulwarks;
- (ii) Chain link fencing or wire mesh that has openings of not more than 100 millimeters (4 inches) in diameter; or
- (iii) Bars, slats, rail courses, or an equivalent spaced at intervals of not more than 100 millimeters (4 inches).

(2) On a vessel subject to the 1966 International Convention on Load Lines, rail courses, or an equivalent, must be installed so that there is not an open space higher than 230 millimeters (9 inches) from the deck to the first rail course or equivalent.

(g) Rails must be permanently installed except that the following rails may be removable:

- (1) Rails in way of embarkation stations and boarding locations; and
- (2) Rails on a vessel when the service of the vessel is routinely changed, as determined by the cognizant OCMI, and the required top rail height varies depending on the service of the vessel at a particular time.

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§ 116.920 Storm rails.

Suitable storm rails or hand grabs must be installed where necessary in passageways, at deckhouse sides, and at ladders and hatches.

§ 116.940 Guards in vehicle spaces.

On a vessel authorized to carry one or more vehicles, suitable chains, cables, or other barriers must be installed at the end of each vehicle runway. In addition, temporary rails or equivalent protection must be installed in way of each vehicle ramp, in compliance with § 116.900 of this part, when the vessel is underway.

§ 116.960 Guards for exposed hazards.

An exposed hazard, such as gears or rotating machinery, must be protected by a cover, guard, or rail.

§ 116.970 Protection against hot piping.

Piping, including valves, pipe fittings and flanges, conveying vapor, gas, or liquid, the temperature of which exceeds 65.5° C (150° F), must be insulated where necessary to prevent injuries.

Subpart J—Window Construction and Visibility

§ 116.1010 Safety glazing materials.

Glass and other glazing material used in windows must be of material that will not break into dangerous fragments if fractured.

§ 116.1020 Strength.

Each window, port hole, and its means of attachment to the hull or deck house, must be capable of withstanding the maximum load from wave and wind conditions expected due to its location on the vessel and the authorized route of the vessel.

§ 116.1030 Operating station visibility.

(a) Windows and other openings at the operating station must be of sufficient size and properly located to provide an adequate view for safe navigation in all operating conditions.

(b) Glass or other glazing material used in windows at the operating station must have a light transmission of not less than 70 percent according to

Test 2 of American National Standards Institute (ANSI) Z 26.1 "Safety Glazing Materials For Motor Vehicles Operating on Land Highways," and must comply with Test 15 of ANSI Z 26.1 for Class I Optical Deviation.

Subpart K—Drainage and Watertight Integrity of Weather Decks

§ 116.1110 Drainage of flush deck vessels.

(a) Except as provided in paragraph (b) of this section, the weather deck on a flush deck vessel must be watertight and have no obstruction to overboard drainage.

(b) Each flush deck vessel may have solid bulwarks in the forward one-third length of the vessel if:

- (1) The bulwarks do not form a well enclosed on all sides; and
- (2) The foredeck of the vessel has sufficient sheer to ensure drainage aft.

§ 116.1120 Drainage of cockpit vessels, well deck vessels, and open boats.

Drainage of cockpit vessels, well deck vessels, and open boats must meet the applicable requirements of §§ 178.420, 178.430, 178.440, 178.450 in subchapter T of this chapter.

§ 116.1160 Watertight integrity.

(a) A hatch exposed to the weather must be watertight, except that the following hatches may be weather-tight:

- (1) A hatch on a watertight trunk that extends at least 305 millimeters (12 inches) above the weather deck;
 - (2) A hatch in a cabin top; and
 - (3) A hatch on a vessel that operates only on protected waters.
- (b) A hatch cover must:
- (1) Have securing devices; and
 - (2) Be attached to the hatch frame or coaming by hinges, captive chains, or other devices of substantial strength to prevent its loss.
- (c) A hatch cover that provides access to accommodation spaces must be operable from either side.

(d) A weathertight door must be provided for each opening located in a deck house or companionway. Permanent watertight coamings must be provided as follows:

(1) On a vessel on an exposed or partially protected route, a watertight coaming with a height of at least 150 millimeters (6 inches) must be provided under each weathertight door in a cockpit or a well, or on the main deck of a flush deck vessel.

(2) On a vessel on a protected route, a watertight coaming with a height of at least 75 millimeters (3 inches) must be provided under each weathertight door in a cockpit or a well.

(3) The height of the watertight coaming for a hinged watertight door, need only be sufficient to accommodate the door.

Subpart L—Ballast Systems

§ 116.1200 Ballast.

(a) Any solid fixed ballast used to comply with the requirements of Parts 170 and 171 in subchapter S of this chapter must be:

- (1) Stowed in a manner that prevents shifting of the ballast; and
- (2) Installed to the satisfaction of the cognizant OCMI.

(b) Solid fixed ballast may not be located forward of the collision bulkhead unless the installation and arrangement of the ballast and the collision bulkhead minimizes the risk of the ballast penetrating the bulkhead in a collision.

(c) Solid fixed ballast may not be removed from a vessel or relocated unless approved by the cognizant OCMI except that ballast may be temporarily moved for a vessel examination or repair if it is replaced to the satisfaction of the OCMI.

(d) Water ballast, either as an active system or permanent, must be approved by the Commanding Officer, Marine Safety Center.

PART 117—LIFESAVING EQUIPMENT AND ARRANGEMENTS

Subpart A—General Provisions

Sec.

117.10 Applicability to vessels on an international voyage.

117.15 Applicability to existing vessels.

117.25 Additional requirements.